In the Claims (Clean copy as amended)

1. (Amended) A stable chloroplast transformation and expression vector which is capable of introducing multiple genes into a selected plant by a single integration event, wherein each step of said multiple genes is carried out by an enzyme encoding a heterologous DNA sequence which comprises an expression cassette, comprising as operably linked components, in the 5' to the 3' direction of translation, a promoter operative in said plastids which drives a multi-gene operon, a selectable marker sequence, the multi-gene operon which is functional to co-express multiple enzymes in the plastids, a transcription termination region functional in said plastids, and flanking each side of the expression cassette, flanking DNA sequences which are homologous to DNA sequences inclusive of a spacer sequence of the target plastid genome, whereby stable integration of the heterologous coding sequence into the chloroplast genome of the target plant is facilitated throughout homologous recombination of the flanking sequence with the homologous sequences in the target plastid gene.

28. (Amended) A method of transforming a chloroplast of a selected plant species or the progeny thereof to confer greater resistance to metal ions than the corresponding parental plant which does not require several back crosses to create complete pathway that detoxifies mercury and organomercurial, said method comprising the steps of:

stably transforming the chloroplast of a plant by inserting an expression cassette containing the mercury resistance coding sequences of claim 21 into a plant species or the progeny thereof, growing the transforming plant species under conditions which allow the expression of said expression cassette.

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37. (Amended) The vector of claim 23 which is capable of introducing a multiple-step biosynthetic pathway into a selected photosynthetic cell by a single integration event